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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/854,393	05/11/2001	Horst Rumpf	DE000076	8218

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EXAMINER

ORTIZ CRIADO, JORGE L

ART UNIT	PAPER NUMBER
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2655

DATE MAILED: 02/12/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Advisory Action

Application No.

09/854,393

Applicant(s)

RUMPF ET AL.

Examiner

Jorge L Ortiz-Criado

Art Unit

2655

--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

THE REPLY FILED 13 January 2004 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE. Therefore, further action by the applicant is required to avoid abandonment of this application. A proper reply to a final rejection under 37 CFR 1.113 may only be either: (1) a timely filed amendment which places the application in condition for allowance; (2) a timely filed Notice of Appeal (with appeal fee); or (3) a timely filed Request for Continued Examination (RCE) in compliance with 37 CFR 1.114.

PERIOD FOR REPLY [check either a) or b)]

- a) ☒ The period for reply expires 3 months from the mailing date of the final rejection.
- b) ☐ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection. ONLY CHECK THIS BOX WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

1. ☐ A Notice of Appeal was filed on _____. Appellant's Brief must be filed within the period set forth in 37 CFR 1.192(a), or any extension thereof (37 CFR 1.191(d)), to avoid dismissal of the appeal.
2. ☐ The proposed amendment(s) will not be entered because:
- (a) ☐ they raise new issues that would require further consideration and/or search (see NOTE below);
 - (b) ☐ they raise the issue of new matter (see Note below);
 - (c) ☐ they are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or
 - (d) ☐ they present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: _____.

3. ☐ Applicant's reply has overcome the following rejection(s): _____.
4. ☐ Newly proposed or amended claim(s) _____ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).
5. ☒ The a) ☐ affidavit, b) ☐ exhibit, or c) ☒ request for reconsideration has been considered but does NOT place the application in condition for allowance because: See *attachement*.
6. ☐ The affidavit or exhibit will NOT be considered because it is not directed SOLELY to issues which were newly raised by the Examiner in the final rejection.
7. ☐ For purposes of Appeal, the proposed amendment(s) a) ☐ will not be entered or b) ☐ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.

The status of the claim(s) is (or will be) as follows:

Claim(s) allowed: _____.

Claim(s) objected to: _____.

Claim(s) rejected: _____.

Claim(s) withdrawn from consideration: _____.

8. ☒ The drawing correction filed on 13 January 2004 is a) ☐ approved or b) ☒ disapproved by the Examiner.
9. ☐ Note the attached Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____.
10. ☒ Other: the amendment to the specification has been entered.

(Attachment of Advisory Action Paper No. 10)

Response to Arguments

1. Applicant's arguments filed 10/20/2003 have been fully considered but they are not persuasive.

Applicant's response to the objection of the specification:

Applicants respectfully decline to add the optional section headings because there is no requirement to include them.

The examiner cannot concur because, the specification is not in compliance with the **37 CFR 1.77(b)(c)**.

Applicant's response to the rejection of claim 4-5 as being rejected under **35 U.S.C. 112** first paragraph:

Applicants argued that the "disturbance-variable" is applied to a controller recited in claim 4, Applicants asserts that the recited features are disclosed on page 2, line 35 to page 3, line 2 and also on page 3 beginning at line 18 of the specification.

The Examiner cannot concur because on the cited lines of the specifications as recited below:

(page 2, lines 32-34) "... two (2) sensors convert accelerations forces detected as disturbances signals d into electric disturbances d_s , which can be processed in the control circuit. The electric disturbance signals d_s are applied to a so called ... (continuing on page 3, lines 1-2) ... feedforward filter arrangement and at the same time serve as input signal for a digital signal processor (DSP) 4".

(page 3, lines 15-22, where the beginning at line 18 is included) "This achieved by means of an adaptation of the parameters P_{ff} of the feedforward filter arrangement 1 and the parameters P_c of the controller 3, in addition to the **disturbance-variable feedforward f**. In order to enable this adaptation to be made a so-called adaptation algorithm is executed on the DSP, which algorithm calculates the optimum parameters P_c and P_{ff} from the reference variables r , the error signals e , the disturbance signals d_s and the control variables u . In this way, the controller 3 and the feedforward filter arrangement 1 can be controlled so as to respond to different external effects, such as brief impacts, shocks, sustained vibrations and component variations in the disk drive 5 as a result of temperature fluctuations, with appropriately adapted control and filter characteristics"

The Examiner could not find where, when, how, etc the "disturbance-variable" is applied to the controller. The signals applied to a controller, as identified by the examiner according to the specification are the signals P_c and e .

As described in the specification (page 2, line 34 to page 3, line 8), the disturbance signals d_s are applied to a so-called feedforward filter arrangement and the feedforward filter arrangement transfer an output signal to the disk drive 5 as the **disturbance-variable feedforward f**.

Also as shown in Fig. 1 the **disturbance-variable f** is applied to a node where a signal u also enters, and further the signals enter to the disk drive 5.

In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies "feeding forward the disturbance variable through the DSP to the controller" are not recited in the rejected

claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Applicant's response to the rejection of claim 1 and 3 as unpatentable over Hsin et al:

Applicants argued that Hsin et al does not disclose, "the parameters of the controller are affected". The examiner cannot concur, because claim 1 does not show when, where, how, etc is "affected". Therefore any calculation, process or function in the controller is interpreted as "effected during process".

In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., "affected") are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Applicant's response to the rejection of claim 3 as unpatentable over Hsin et al:

Applicants argued that Hsin et al does not disclose or suggest adjusting parameters in response to external disturbances that occur.

The Examiner cannot concur because Hsin et al discloses adjusting parameters in response to external/internal disturbances that occur (See Abstract ; col. 2, lines 28-40; col. 4, lines 10-15; col. 4, lines 41-53; Fig. 2,5).

In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., "external disturbances") are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Applicants also argued, "there is no motivation for providing the controller with the capability to adapt its control parameters"

Accordingly no motivation is needed under 35 U.S.C. (102) rejection basis.

Applicant's response to the rejection of claim 2 as unpatentable over Hsin et al in combination with Ferguson et al:

Applicants argued that Hsin et al does not disclose or suggest, "the parameters of the controller are altering/affected". The examiner cannot concur, because claim 1 does not show when, where, how, etc is "affected". Therefore any calculation, process or function in the controller is interpreted as "effected during process". The combination of Hsin et al with Ferguson et al. shows altering/affected (effected during process) (See Hsin et al col. 4, lines 12-18), (See Ferguson et al. col. 3, lines 35-66; Fig. 2)

In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies ("affected/altering") are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

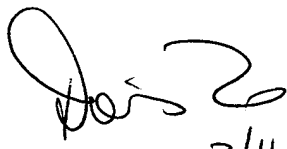
Applicant's response to the rejection of claim 4 and 5 as unpatentable over Hsin et al. in combination with Ferguson et al:

Applicants argued that the combination of Hsin et al with Ferguson et al. does not disclose or suggest "providing outputs from a processor to alter parameters of the feed forward filter and the controller"

The Examiner cannot concur because Hsin et al. discloses alter by adapting the parameters of the feed forward filter and the controller (See Abstract; col. 2, lines 28-40; col. 4, lines 10-18; col. 4, lines 41-53; Fig. 2,5). Hsin et al. fails to disclose a processor and providing outputs from a processor to alter parameters of the feed forward filter and the controller.

However this feature is well known in the art as evidenced by Ferguson et al., which discloses a control system for cancellation vibration whereby the system includes an adaptation algorithm executed by a processor (See Abstract; col. 3, line 35 to col. 4, lines 11; col. 5, line 61 to col. 6, line 33; Fig. 2)

Therefore it would have been obvious to one with ordinary skill in the art at the time of the invention to wherein the adaptation algorithm is executed on a processor to adjust the parameters of the feed-forward filter and controller, in order to optimize faster adaptation calculations as suggested by Ferguson et al.


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